



# Federal Automotive Statistical Tool

Asset-Level Data: Lessons Learned and  
Looking Forward

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## We'll cover...

- FY 2017 and ALD: A quick recap
- What we learned and what we're changing
- Need more information?

## FY 2017 and ALD: A quick recap

- **39 of 49 reporting agencies provided ALD**
  - First use of ALD for all except Department of the Treasury
  - Fleets from 3 to 230K vehicles
- **~ 90% of the fleet as ALD**
  - ~ 610K vehicles
  - ~ 915K fuel entries



XML vs Excel:

~ 250K vehicles reported using XML format

~ 360K vehicles reported using Excel format

## What we learned...

- **After the data call: comprehensive review of flags and flagged data**
  - Looking at flag counts
  - ... flags by agency
  - ... distribution of data vs what was flagged
- **Trying to answer one key question:**
  - Were we flagging what we should be?



Flagging vs blocking rules:

- Blocking rules prevent invalid data from being loaded
- Flagging rules identify vehicles with attributes or combinations of attributes which are outside of expected norms.

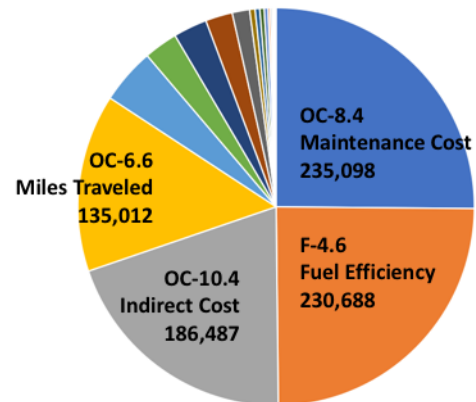
Flags do not necessarily mean invalid data, just that the data is not what would be expected for a "typical vehicle" in the federal fleet.

Intent is that agencies review flags, figure out whether the data is correct and complete (but just not "typical"), fix the problem IF NEEDED.

## What we learned...

### ■ Flags

- ~ 910K flags total
- 25 of 26 flags occurred
- Flag counts ranged from 10 to 235K per flag



One flag that did not occur: OC-1.5, looks at year-to-year consistency of acquisition cost (which makes sense where this was the first year of reporting ALD for almost all agencies)

Four most frequent flags account for approximately 86% of all of the flags

Seems obvious that if 20-40% of the vehicles are being flagged, we're really not identifying legitimate outliers (or that there are some surprisingly widespread/common issues with data quality)

## What we learned...

- **Evaluated each flag**

- Statistical analysis of the relevant data
- Review of flagging thresholds/ranges:
  - “What is typical for this data?”
- Review of vehicle applicability:
  - “Which vehicles should this flag apply to?”
- Result was a decision if/how to revise each flag
  - 11 flagging rules with significant changes



## What we're changing...

- **Guiding principles:**

- Less noise, more signal
- Don't break things (or make things worse)

- **27 specific changes to business rules:**

- Better identification of outliers
- Requirements changes (EO 13693 rescinded)
- Improve quality and/or consistency of data
- Make things simpler



Make things simpler or clearer:

- Ability to specify vehicle location by “U” class ZIP codes (assigned to unique organizations/locations, such as Federal buildings)
- Clarify or reword existing rule descriptions

## What we're changing...

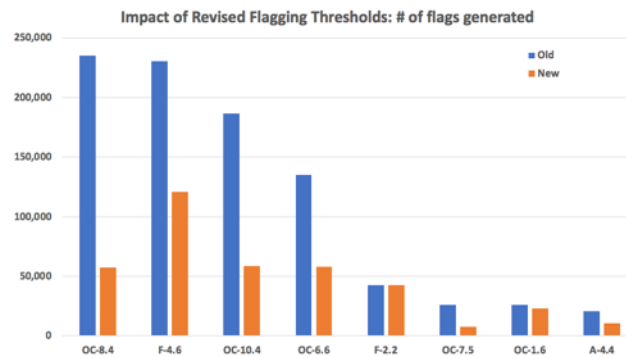
- **Better identification of outliers**

- 9 rules with revised ranges
- 9 rules with changes to vehicle applicability
  - # of months in the fleet
  - Ownership
  - Vehicle class

## What we're changing...

### ■ Impact:

- Decrease of 500K flags to ~410K total



Noted decrease is based on running agency-submitted FY 2017 fleet data against the changes being put in place for FY 2018 reporting.

## What we're changing...

### ■ Requirements-driven changes

- Element S-4, EO 13693 Designation
  - deprecated for FY 2018 reporting
  - to be retired in FY 2020
- Four business rules related to S-4 deprecated, modified to no longer look at that element, or retired for FY 2018 reporting

## What we're changing...

- **Make things simpler, easier, better**

- 6 clarifications of data element or biz rule descriptions
- Support of "U" class ZIP codes for A-10, Garage-ZIP
  - e.g., ZIP codes assigned to Federal buildings
- Support for "MD Ambulance" vehicle type
  - for consistency with "LD Ambulance" and "HD Ambulance"
- New flagging rule: vehicles reporting B100 w/o DSL
- New blocking rules for consistency of future-year data:
  - acquisition costs vs. quantities, disposal proceeds vs. quantities

## More information...

- **FAST Help > Resources > Vehicle-Level Data**

- Current revisions of key references
  - Data Element Reference
  - Business Rules Reference
  - Comprehensive summary of these changes

- **FAST Help > News**

- Information about recent (and pending) changes

Web Address: <https://fastweb.inl.gov/help/>



## More information...

### ■ FAST Program Points of Contact

- DOE Federal Energy Management Program
  - Karen Guerra ([karen.guerra@ee.doe.gov](mailto:karen.guerra@ee.doe.gov))
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